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Optimization of Application Timing and Frequency of Microbial Inoculants for Turfgrass Disease Control

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Abstract

Microbial inoculants were applied to creeping bentgrass turf using different application timing and frequency. Comparisons were made between daily and weekly applications made either in the daytime or at night. This study represents the second year of a three-year study on the disease control efficacy of introduced microbial inoculants. Drought and heat conditions of this season were considerably greater than in the previous season. Despite this, dollar spot control efficacy was apparent among the inoculants tested. Our results indicate different responses from microbial applications depending on the species applied. In general, weekly nighttime applications were more effective than daytime applications. This is in contrast to the previous year's study where daily applications were more effective than weekly applications. Populations of *E. cloacae* and *P. aureofaciens* were monitored throughout the period when day and night weekly and daily applications were being made. Little or no change in *P. aureofaciens* populations were observed over the season whereas populations of *E. cloacae* declined, despite continuous daily and weekly applications.

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